

AIR COMMAND AND STAFF COLLEGE

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**Rules of Engagement in Hybrid Warfare**  
**Integrated into Operational Design**

by

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## Thesis

Hybrid warfare is transforming the complexities surrounding rules of engagement (ROE). The integral foundation for developing ROE in a hybrid warfare environment revolves around operational design. Imbedding ROE development in the Joint Operation Planning Process (JOPP) from the start with a strong focus on Information Operations (IO) will lead to better campaign planning. Civilian casualties and collateral damage can better be weighed against the risk to U.S. and coalition personnel. In addition residual risk from the strategic to the tactical level can be assessed during mission analysis.

## Introduction

ROE development should be fundamental throughout the process and not just a set of instructions that are not really integrated with the way the U.S. military trains or fights. Military objectives and effects are directly related to ROE development. It is not possible to conduct a campaign less than total war and not have ROEs hinder kinetic operations. That being said integration can mitigate severe problems. An effective IO campaign that lead turns developments and does not wait for the adversary or the media to put the story out there is the key component to a flexible ROE process. Hybrid warfare has presented exceptional challenges to existing international rules of law and war. As a result hybrid warfare also creates difficulties for LOAC. This in turn makes for difficult and ambiguous rules of engagement (ROEs). Rigid ROEs lead to undue risks to friendly forces and civilians. Rigid ROEs force commanders to have to make red light-green light decisions in an ambiguous environment.

On February 13, 2010 Operation Moshtarak commenced. This is the largest operation in Afghanistan since the collapse of the Taliban. The operation is centered in Helmand Province in the southern part of the country with a focus in the city of Marjah. One huge problem in hybrid

warfare is rigid ROEs political and military leadership place on soldiers. This is done to limit the risk that the leaders have to deal with in the political realm. Tight ROEs do not necessarily benefit the safety and security of soldiers, nor do they make the job easier to accomplish. In fact it makes it much more difficult to conduct operations. Tight ROEs lead to red light-green light decisions in an operational environment that is nothing but shades of grey. Operations in Marjah have been made very difficult as a result of strict ROEs. One young Marine, Lance Cpl. Travis Anderson was quoted, "I understand the reason behind it [current ROEs], but it's so hard to fight a war like this....They're using our rules of engagement against us." Cpl Andersons platoon has repeatedly seen men drop their weapons into ditches and walk away allowing them to blend in with civilians.<sup>1</sup> Our military leadership has acknowledged that, "...the rules entail risk to its troops, but maintain that civilian casualties or destruction of property can alienate the population and lead to more insurgent recruits, more homemade bombs and a prolonged conflict."<sup>2</sup> Are the lives of Afghani civilians are more important than the lives of U.S. servicemen? This is unacceptable. Because the ROEs were not integrated into the campaign from day one an ineffective red light-green light policy was put in place with a strong emphasis on the red light side. Understanding how to develop and integrate ROEs that balance the risk to friendly forces and collateral damage to the civilian populace is crucial for effective operations.

The deputy commander of NATO-led forces in Afghanistan, Jim Dutton, was quoted, "If you are in a situation where you are under fire from the enemy... if there is any chance of creating civilian casualties or if you don't know whether you will create civilian casualties, if you can withdraw from that situation without firing, then you must do so."<sup>3</sup> This creates a variety of problems. The fight in Afghanistan is among the people. These fighters are not distinguishable from the general population. They don't wear uniforms. The only way soldiers know they are a

combatant is because they are shooting at them. The person right next to the shooter may or may not be an accessory. Therefore there must be a chance you may hit a civilian no matter how slight. Second, the enemy knows our hard rule. They will only present themselves in situations where there will be non-shooting personnel in the immediate area. Third, when the shooting starts and innocent people get injured from the hostile fire but soldiers do not return fire the basic premise of the security mission is compromised. Local personnel will not necessarily see the soldiers as being able to protect them. They make take protection matters into their own hands and actually spread violence. Fourth, this places soldiers in unnecessary danger. Leadership has taken away the ability to fight back, and in effect has rendered the Joint Chiefs of Staffs standing ROE of inherent right to self defense away. Fifth, this can create operational paralysis for a unit and can render them ineffective. The only choice is to disengage. In the end all the risk is incurred by the soldiers on the ground and the mission does not get done.

There has been a noticeable spike in violence in Afghanistan. The increase in violence in Afghanistan directly correlates with the shift of effort from Iraq to Afghanistan. From 2003-2008 there was an economy of effort for Enduring Freedom. With increased operations and number of personnel on the level of violence was bound to increase. There were 1,013 civilian deaths in the first six months of 2009, an increase of 24 per cent as compared to the same period in 2008.<sup>4</sup> There were 520 coalition casualties in 2009 compared with 295 in 2008. Fifty nine percent of those casualties were attributed in anti-government forces while 30 percent were caused by pro government forces.<sup>5</sup> Sixty seven percent of the deaths caused by anti-government forces were as a result of indiscriminant IED or suicide attacks.<sup>6</sup> Less than a third of those deaths were caused by coalition forces. "UN human rights chief Navi Pillay warned that civilian casualties were

likely to continue rising unless more effective preventive measures were taken.”<sup>7</sup> Yet the current ROEs in place will make it more difficult to protect the population.

What if this develops into a hybrid war? What if U.S. casualties rise? Hybrid war is distinguishable from other types of conflict. According to Dr. Dave Johnson hybrid war is when irregular forces are armed with high tech weapons (i.e. Hezbollah) supplied from a nation state (i.e. Iran). Right now if a helicopter is shot down in Afghanistan it is a singular event. If the Taliban is armed with SA-16s and is consistently able to shoot down helicopters they have a capability.<sup>8</sup> This environment does not lend itself to rigid ROEs because each situation is different and therefore should be handled accordingly. If the Taliban is able to acquire high tech weapons the U.S. will not be able to move with impunity. Helicopters could be at great risk if SA-16s are proliferated amongst the Taliban. The limited road system cannot accommodate all the places we go by helicopter. We could face the same challenges the Soviet Union faced a generation earlier. Afghanistan has so many different factions involved in conflict. There are multiple warlords who want increasing influence. This leads to tribal disputes and violence. The Taliban insurgency is attempting to reassert itself and its cause over the population. Al Qaeda still has a strong presence in the region. In the United States the casual observer just lumps all this together. For the operation commander these groups each have their own agendas and in many cases are opposed to each other leading to violence. As the U.S. asks the soldiers to do more to fight these problems it should not take away their ability to do the mission.

Hybrid warfare blurs the line between the classic rule of war and the rule of law. Most rules are set up under two realms-peace or war. Once hostilities are declared over by political entities the peace rules go into effect. This automatically triggers more restrictive situations for soldiers. Peace rules limit operational freedom granted during wartime rules such as search and

seizure. The irregular fighter quickly learns to exploit this gap. The Geneva and Hague conventions lay out four criteria for a lawful combatant. First forces must be commander by a person responsible for their subordinates. Second, they must have distinctive emblems recognizable at a distance. Third, they must carry arms openly. Fourth, they must conduct their operations in accordance with the laws of war.<sup>9</sup> In places like Afghanistan these rules are not followed by enemy forces. It does nothing to deter the irregular fighter. This creates a situation more dangerous for soldiers and civilians because the false auspices that peace somehow equates to reduced danger. "Mullah Mohammed Omar, the Taliban Supreme Leader, decreeing that the laws [of war] were merely a manifestation of a false Judeo-Christian Western ideology, evidenced this contempt."<sup>10</sup> Under this set of circumstances the coalition is forced to choose either operating under the rule of or the rule of war. Neither of these fit. In the laws of war a sniper could be could be shot because he is a combatant. In rule of law he cannot unless he is actively shooting. He cannot be shot for simply possessing a sniper rifle. In the laws of war the driver of Osama bin Laden cannot be held because he is not a combatant. In the rule of law he could be arrested and charged in an accessory to crimes committed by Bid Laden. This simple example shows that the current divide does not lend itself to hybrid warfare.

### Legal Solutions

The Geneva Conventions of 1949 were a response to the total conventional war that World War II represented. The Geneva conventions were last revised in 1977 and the United States did not ratify them. Ironically it was over the potential issues of irregular conflicts and the legitimacy of its participant that kept the U'S from ratifying it. What is desperately needed is an updated convention to deal with a host of irregular issues.

Today's terrorist threat is but one form of war among many that appear to fall outside the convention's guidelines. Wars today bear little resemblance to the battles between more

or less evenly matched armies of uniformed soldiers from opposing states for which the Geneva conventions were devised...today's wars are fought by warlords, mercenaries, and children against the backdrop of failed states. The Geneva conventions do not correspond to today's conflicts, but they should be modernized to account for modern wars and modern warriors, not ignored.<sup>11</sup>

It should address terrorism, criminal elements, insurgencies, and other situations not currently addressed. That new convention needs to lay out the following. First it would eliminate the peace verses war dynamic as well as the law verses war rules distinction. A new set of principles would incorporate elements of both. Specifically it would give designated forces that ability to conduct offensive operations that would normally be restricted in a peace time setting. It would also give those forces police powers. Police powers would give those forces legitimacy for security enforcement and arrest power. It would allow the man armed with a sniper rifle to be shot for his potential imminent danger to forces and civilians. Using an effective IO campaign detailed later this shooting would be clearly explained to the local community. This updated set of rules would also allow Bin Laden's driver to be arrested and charged with crimes. The local population could truly look upon U.S. forces as their protectors. Since the local population is the center of gravity their protection should be the thrust of effort without unnecessary impediments.

With updated international authority the United States could update the law of armed conflict (LOAC). "LOAC comes from both customary international law and treaties. Customary international law, based on practice that nations have come to accept as legally required, establishes the traditional rules that govern the conduct of military operations in armed conflict."<sup>12</sup> With this new law LOAC could be modified. Its two main principles, military necessity and distinction each would be affected. With the expansion of what is a military objective (i.e. law enforcement) this also expands who the enemy is. The military objective term should be replaced to "hostile activity enabling objective" thus considerable expanding the scope

to include irregular situations. Targeting in the new environment is not necessarily kinetic. Kinetics should always be last resort if conflict is occurring where collateral damage is almost guaranteed. In irregular conflict the distinction is not so clear in all cases. In most circumstances the activity is embedded in civilian communities. There are no purely military targets since there is no clear cut enemy. There is no separation between military and civilian objects. The updated distinction would use the law enforcement model of probable cause and then a decision of risk would have to be applied to best see how to handle a target. Do you arrest or is a kinetic strike the best option? It is situation dependent. With the updated LOAC it would empower the commander on the ground to use his or her judgment to best protect the population.

#### Rules of Engagement Development

In order to develop solid ROEs the right laws and training must be in place from the start. The worst mistake a commander can make is to treat ROEs as another thing to memorize. ROEs need to be a part of the pre-deployment training plan. Familiarity of the ROEs in the training environment will enhance the effectiveness of the units deployed. In addition it will mitigate critical decisions that need to be made in the deployed environment. Delays can be the difference between life and death for both coalition and civilian personnel.

There is inherent danger in blanket ROEs. An inflexible system is a one size fits all approach that may not be compatible with the situation confronting coalition forces. Inflexible ROEs can lead to inaction at key moments. They also make coalition forces predictable and therefore at increased risk. While inflexible ROEs may be easy to quantify on paper, their limited applicability more than offsets an apparent strength. Barnett and Cimbala comment on this.

It is important to keep in mind that the ROE are developed or modified by the SecDef and the CCs to fit the strategic and operational needs of particular events and operations. There is no desire for a “one size fits all” approach, but rather an iterative approach whereby the higher levels of the chain of command provide initial guidance and then

respond to submissions from below to amplify, explain, modify, or substitute other ROE provisions based on the needs of each component or subordinate division.<sup>13</sup>

Taking this a step further would allow the field commander to have that input to deal with the problem. Flexible ROEs in combination with training allows forces to adapt to changing situations and required shifts in ROEs. Figure 1 illustrates the interconnected link between tactical risk and strategic risk. The level of force applied will simultaneously affect both sides. Flexible ROEs should strive for the optimum balance of suppressing the enemy while protecting the population. Too little force and soldiers are at risk. The U.S. population is averse to casualties and therefore raises the strategic risk (support of the population). Too much force increases civilian casualties. The reaction in the local area may increase risk to U.S. forces. In addition civilian casualties do not play out well with the local government raising the strategic risk (international reaction). Only commanders on the ground can hit the optimum balance.

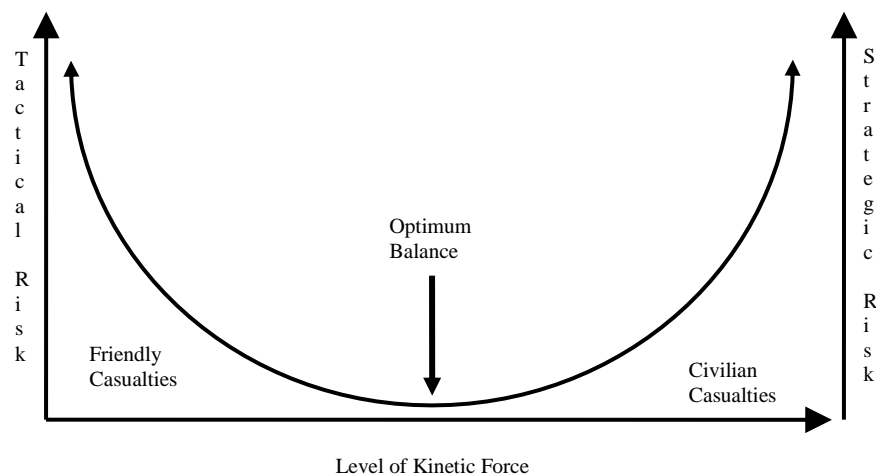
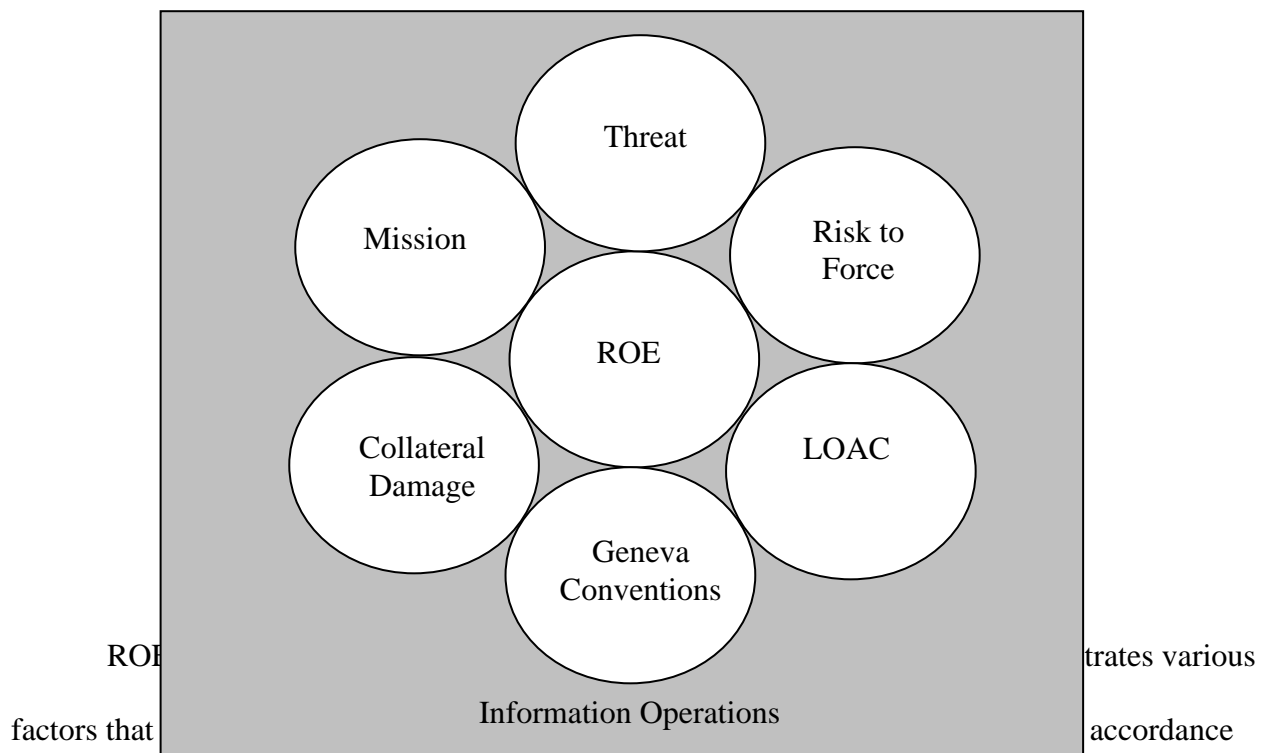


Figure 1. Risk vs. Kinetic Force

ROEs can be incorporated into their daily training regimen long before deployed to combat. This allows ROEs to be flexible and situation dependent. Highly qualified troops are less likely to make poor decisions and should not be hampered by traditional red light-green light ROE development. As the situation changes and goes from instability or stability or vice versa

this force can adjust their operations accordingly. Also the JFC can be assured that better decisions are being conducted at the lowest tactical levels. It is *extremely* critical the tactical operator understands the strategic goals and keeps them in mind when conducting operations. The IO campaign needs to also be consistent from the tactical to the strategic. The entire thought process of ROEs can be revolutionized with this approach. The tactical mistakes carry too much strategic risk. A highly trained specialty force gives the JFC, SECDEF and POTUS great flexibility options to meet nation objectives in the ambiguous situations of hybrid war.



with international law and LOAC. Any applicable treaties that would directly affect ROEs must be considered. In addition all applicable U.S. and coalition laws must be followed. Ideally the mediations describe earlier will be in place. Finally any guidance from the United Nations, NATO, President, SECDEF, and JCS must be adhered to. Many times the political leaders may put difficult restrictions in place. If those are identified they need to be taken up the chain of command. Political leaders need to understand the increased risk to friendly forces as a result of

restrictions. Based on the guidance clear operational objectives need to be established. The scope and purpose of the operation should be clearly defined. This will help evaluate dynamic situations and clarify ambiguous issues.

ROEs should be an adaptive process built for the situation. Integrating ROEs into operation design should start with PMESII-PT (political, social, economic, social, infrastructure, information, physical environment, and time). These factors should be analyzed with ROEs in mind. PMESII-PT is a key component of operational design. The political reality must be addressed. Any conflict the United States gets involved in will have limited objectives. In a total war with national sovereignty at stake there would be no limits on operations. In hybrid conflicts the U.S. could get involved in COIN will probably be the focus while combating irregulars and criminals. The political leaders will restrain the operation and possibly leverage constraints as well. Developing a scope of military operations that is not in line with political objectives will cause major problems. Israel made this mistake. “[T]he existing conception of conventional ground combat, attrition, and occupation prevalent in the IDF was out of synch with either the nature of the enemy or the level of commitment Israeli leaders (and in their view the Israeli public) were willing to make.”<sup>14</sup> Boundaries are a part of the restraints. Any treaty or binding agreement in an operational area must be abided with. Applicable SOFA agreements need to be factored. The level of protection afforded by the SOFA agreement may drive use of force levels (such as soldiers can be prosecuted under local laws as criminal acts rather than laws of war). Coalition mandates are another set of instructions that must be consulted. Restricted operating areas such as nation state borders must be abided by. The U.S. should avoid binding agreements that specifically prohibit certain kinds of military action. National leaders should not tie the hands of the operator. Broad concepts should be laid out allowing commander’s needed

flexibility. Nevertheless the military must understand that the political situation will drive the operation.

The military factor starts with the mission. The priority of the mission (high, normal, low) should have corresponding ROEs. The higher the risk the more liberal the ability to employ force should be. Under no circumstances should U.S. forces be under ROEs that do not allow them to shoot back, especially when the shooter has been 100 percent identified. Since civilians will almost certainly be present non-kinetic techniques that incapacitate may be the best option. This would allow the shooter to be apprehended and arrested while the civilians would be inconvenienced but alive. The information campaign is required here and will be addressed later. Friendly security cannot be compromised. The makeup of the friendly forces is important. Experienced troops are prone to make better judgments in tough situations. Inexperienced troops should have more restrictions placed upon them. This will limit their flexibility, but the political and media fallout from mistakes may be at the national strategic level within hours. Avoid relying on inexperienced troops to conduct major operations. The presence of NGOs in a hybrid environment is very probable and complicates matters. NGOs must be afforded protection even if that means extreme risk to U.S. forces. They are the thrust of the COIN effort and their loss in a firefight could have very negative repercussions. Intelligence requirements are at a premium. Trying to distinguish personnel in this environment is difficult. Good intelligence can mitigate the fog of war.

Enemy capability is part of the military analysis. How many fighters are in a particular area may drive the size or the operations. The organizational level is also important. Expect the enemy to not follow any rules of war. A mixture of conventional style fighting mixed with suicide attacks should be expected. This would force the U.S. to deal with this threat first.

Operations as they currently are would be severely disrupted. The U.S. should expect to see this in the future. In some stretches the combat may be conventional in every way. Distinguishing civilians from irregular fighters may be close to impossible. A supply sergeant is obviously a lawful combatant. A native dressed woman who is loading magazines could only meet the threshold if caught in the act. Therefore the best criterion is whether personnel are armed or not. Assume unknown armed personnel are hostile and need to be investigated. Use the escalation of force as necessary. Shooting first and asking questions later is not an acceptable ROE. This should never be applied.

The economic analysis and ROEs plays a small but very critical role. Avoid targeting things will cause economic hardship on the local community. The social analysis is more involved. Trust and confidence are requirements in COIN. Hybrid warfare tactics may be used to disrupt this. Population security should be the priority of effort just behind friendly security. If the U.S. is providing security in an area the escalation of force should always lean towards the minimum. If local forces are providing security they should be under a more stringent red light-green light set of rules. If things escalate into combat the U.S. forces need to be able to respond.

Civilian casualties are guaranteed to bring the highest levels of scrutiny. Any time kinetics are employed expect the incident to be investigated thoroughly. The more civilian casualties in an engagement, the more negative the reaction from the local community and the press. This will affect the morale of the local population. They can range anywhere from completely uncooperative to elated. No change may be observed. Once again here is where ROEs and information operations are inseparable. Second and third order affects are generally going to play out in the social arena. Rarely will these affects become readily apparent.

Infrastructure has economic and social ties. Utilities and LOCs are paramount. These are

critical areas that the U.S. is trying to improve in a COIN environment. In addition destruction of these vital necessities will create hardships on the communities served by them. The economic impact could be significant. They may be targeted by hostile forces. Again an integrated IO campaign needs to emphasize when hostile forces destroy these vital links as well as document U.S. effort to protect them. In the process of protecting these assets an ROE consideration is not to damage these in the process. The enemy may be stopped, but if power has been cut off nothing has been gained. Collateral damage to infrastructure, commercial, residential, historical, and religious structures will meet tough scrutiny similar to civilian casualties. ROEs need to avoid turning functioning systems into non-functioning systems.

Information Operations (IO) should be our main offensive weapon in a hybrid war environment. “The information campaign must target the correct audience, establish primary vectors to communicate the message, shape the battlespace and communicate the message in a timely manner.”<sup>15</sup> The information part is where the U.S. has woefully failed in hybrid operations. The U.S. should take a lesson from Israel. “Some even argue that Israel’s problem is one of narratives and Israel failed to ‘win’ the public relations battle because of poor information warfare techniques or practices, because it had to “tell the truth” while Hezbollah told lies, or that Israel ‘lost’ because of media biases.”<sup>16</sup> The enemy has exploited casualties and collateral damage with relative impunity. An effective IO campaign is critical for success and reversing current trends. “So long as the right questions are asked and incorporated into the ROE requests, a commander will be provided much of the guidance he or she needs to determine what legal issues are raised in IO planning.”<sup>17</sup> The key component is the message. Simply the best way to function is to tell the truth first. Israel did not get its message out first. The U.S. needs to lead every story whether mistakes were made or not. All platoon size entities should have a combat

cameraman embedded with them. Ample access to Public Affairs specialists is also critical. All events should be recorded to the maximum extent possible. What and why things were targeted need to be explained to the local and international media on our time table. The enemy puts out misinformation and the U.S. is left defending a bad message. Instead the U.S. message should basically start with something like this.

The United States takes the position that proper application of the balance between necessity and proportionality appropriately guarantees the safety of the innocent from unnecessary suffering-by seeking, to the extent possible under the circumstances, to inflict the least amount of collateral damage, so the argument goes, we maintain flexibility for the military commander while protecting the innocent.<sup>18</sup>

By putting out the footage and explaining what happened you lead turn the events and force the enemy to counter. This must be immediate. The current analysis and red tape that delays this must be stopped even at the risk of losing some refined intelligence. Civilian casualties and collateral damage can be explained in terms of what hostile forces were doing leading up to the event. “[E]ach IO activity must be synchronized with other efforts and wider operational efforts to achieve maximum effects.”<sup>19</sup> The goal is to shift blame to the enemy. The U.S. takes great care to avoid making mistakes. That message needs to inundate the media. Here is an example of work a properly integrated IO cell came up with in ROE development according to Barnett and Cimbala.

- Who/what is perpetrator/adversary? Criminal? Terrorist? State? Combination?
- Where is perpetrator located? United States? International waters/airspace? Third Country?
- What is the state of perpetrator?
- What is the impact on the United States? Minor disruptions or damage to national security?
- Who should respond? Law enforcement? Host country? Flag state? U.S. Military?
- Is interagency coordination required?<sup>20</sup>

This kind of thought process can help you set ROEs in the context of second and third order effects. The media and political reaction will shape those effects. By setting the right conditions

of the message the residual risk can be mitigated because more desirable second and third order effects can be shaped. Words are important. Using the term “civilian” too liberally is beneficial to the IO campaign. Right now if someone is found unarmed they are a “civilian.” A better term is “persons not currently bearing arms.” While this may be cumbersome it clearly sends a different message. Read these two statements:

- “Three Taliban fighters and nine civilians were killed in the Raid.”
- “Three confirmed Taliban fighters and nine personnel not bearing arms at the time of assessment were killed in the Raid”

The second message does not sound as cold hearted. In addition it leaves open the possibility that the U.S. is not convinced that those nine personnel were not involved. The press will of course say they are civilians. It is very important the U.S. does not ever back off from their terminology. The connection to ROE in these statements comes down to identification. In this case some part of the force was 100 percent identified as hostile. They were taken down. The other personnel may or may not have been a part of the operation. Yet the identified hostiles chose to put others at risk (possibly as human shields). Again if the U.S. leads with the story the press is forced to react-not vice versa. This is not going to work with child casualties unless there is video evidence showing children with weapons. Part of the IO offensive plan needs to be prepared for this. The residual risk will affect the U.S. ability to operate among the population in a given area. That more favorable the reaction the less impeded the U.S. will be. The more favorable the reactions, the better the morale of the population because they will know that the U.S. is not trying to indiscriminately kill innocent civilians.

The physical environment and time must be considered. Wide open terrain minimizes collateral damage concerns and thus may allow for more liberal ROEs. Urban terrain is very

challenging because the chances of civilian casualties and collateral damage are magnified. Expect adversaries to exploit urban areas knowing it will make it more difficult for the U.S. to avoid problems. Here is where non-kinetic means can pay huge dividends. Time is the last factor. It is the most important element in initial campaign planning, but not as central a focus in ROE development. How much time you have to react, maneuver, relocate, etc will play into operations. If time is a critical factor there may be more risks involved.

The operational design is critical to any campaign. Operational design is described in JP 5-0. The PMESII-PT analysis is critical to the operational design. ROEs need to be imbedded in the operational design from the beginning and should always be factored in along the way. While ROE integration is important in most of the JOPP, mission analysis is the key piece to ROE development. The first two steps of the JOPP are the operational design steps. Refer to Figure 3. The rest is operational art. The first step in the JOPP is initiation. For ROE development contingency planning affords the joint planning group (JPG) time for ROE assessment. In crisis action planning time is compressed and full analysis may not be possible. According to JP 5-0 the commander, "...may act within approved ROE in an immediate crisis."<sup>21</sup> Other than inherent right of self-defense ROEs developed without full mission analysis may severely degrade the ability of forces to accomplish the mission. Integrating PMESII into ROE planning in advance can mitigate these problems up front. No commander wants to send forces into a hostile area with difficult ROEs that compromise safety and security. Proper mission analysis can assist in creation of standing flexible ROEs the JFC can implement immediately. With updated laws and training useable and easy to understand ROEs can be disseminated in initial planning guidance.

Always judge PMESII-PT factors while determining your relative risk. This is the heart

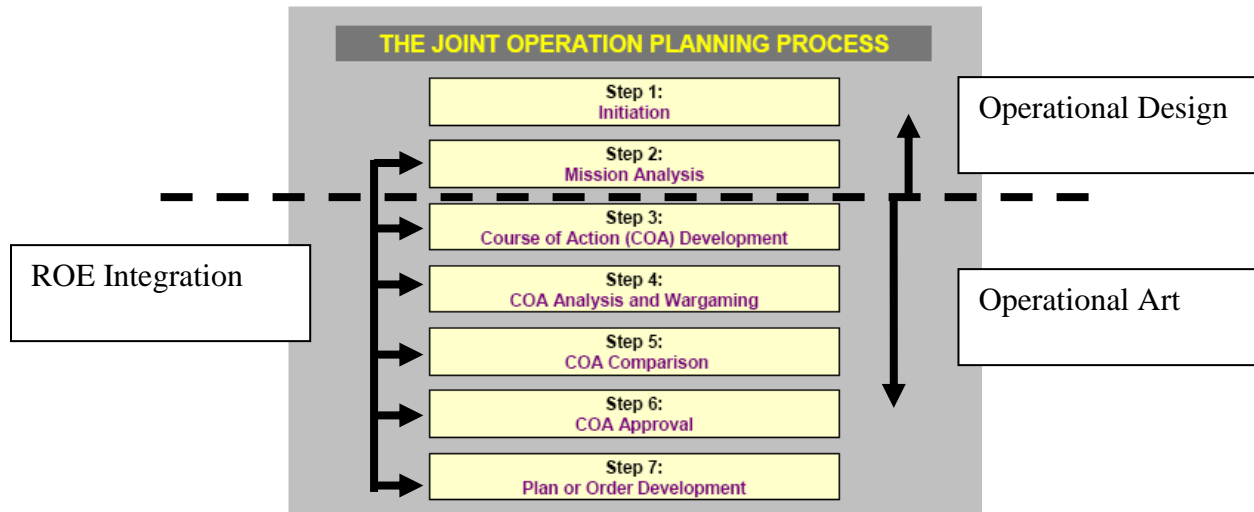


Figure 3 Joint Operation Planning Process with ROE Overlay<sup>22</sup>

of your mission analysis. Your relative risk is your ROE basis. ROEs are basically are you going to pull the trigger and what size trigger are you going to pull. A flexible system should give the commander a gut feeling whether he or she is going to have to use a great deal of kinetics. The desired outcome should strive for the minimal use of force in any conflict. It's a balancing act between risk to your troops, risk to the civilian population, and residual risk that lasts well beyond the operation.

The first product of mission analysis should be a cognitive map developed by Dr. Jeff Reilly. Refer to Figure 4. It breaks down mission analysis into useable logical portions. ROE development can be analyzed using the cognitive map. The first step in the cognitive map is the assessment of national strategic end state. It is imperative to get the as clear as possible. The more limited the objective the more likely that ROEs will be tighter. The military end state will be the point where the military is no longer required. Up to that point ROEs will be integral in daily operations. Clear operational objectives are a must. The scope and purpose what you are trying to accomplish will refine all other phases of planning. It will also drive operations toward the objectives in ambiguous situations. Effects and ROEs cannot be separated. "An effect is a

physical and/or behavioral state of a system that results from an action, a set of actions, or another effect.”<sup>23</sup> The desired effect and how the military intends to achieve it is the central core of why ROEs exist. Military force unrestrained may meet the objective, but have disastrous second and third order effects. “Joint operation planning uses measurable desired effects to

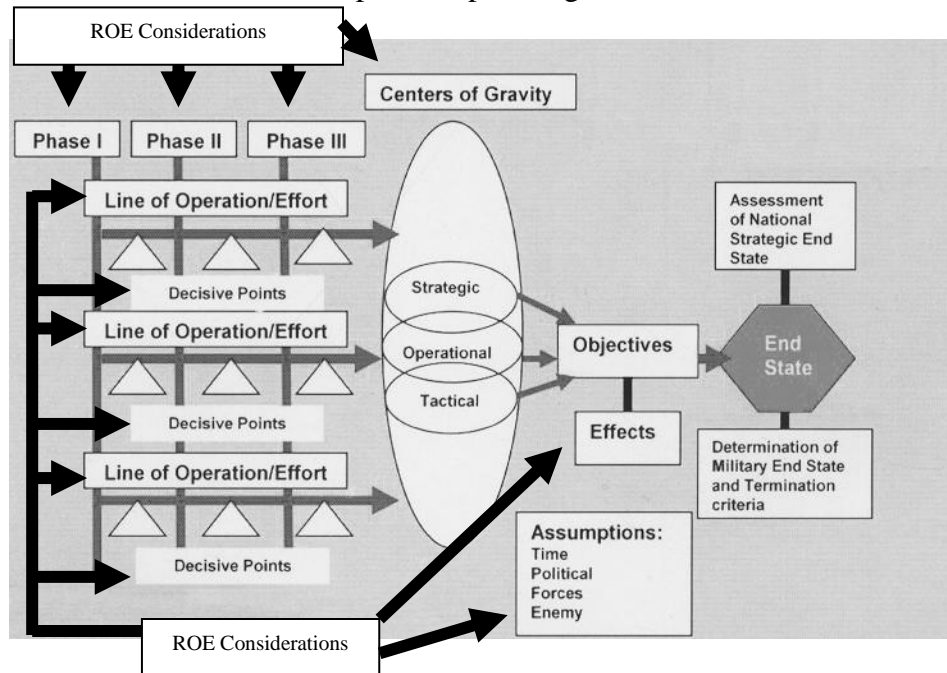


Figure 4 Dr. Jeff Reilly's Cognitive Map with ROE overlay<sup>24</sup>

relate higher-level objectives and effects to component missions and tasks.”<sup>25</sup> Since effects are ideally measurable ROEs need to enhance desired effects while mitigating risk. This is one of the current problems in Afghanistan. The desired effect is security of the population but at an unacceptable risk to coalition forces.

There are generally three types of limits that require ROE development. They are geography, weaponing, and means. Geography and political boundaries will limit operational freedom. Allowable weapons are central to ROE development. The escalation of force is central here. Any time you limit the weaponing you limit offensive options. Again unconstrained weaponing may have undesired second and third order effects. Collateral damage and civilian casualties are the main drivers behind limits. Means of employment are the third way objectives

may be limited. Direct or indirect action will have differing outcomes. Methods combined with weapon choices will be the key element in ROE development. Again this is where the red light-green light ROEs have historically taken over. In this more integrated process decisions on the ground made by the on scene commander should drive the action. In an integrated process the larger strategic goals need to be clearly understood by the battlefield commander. From the battlefield perspective liberal ROEs are desired because the first order effect is the primary problem at hand. Clear understand of the strategic end state is paramount. This has traditionally been the source of friction. In every operation there are complaints about how ROEs made the job much more difficult. Operational design allows for operational art which translates to tactical art. Connecting the line from national policy to tactical execution is the key for ROEs. It's the balance of risk.

Assumptions also factor in ROEs. An assumption is, "a supposition on the current situation or a presupposition on the future course of events, either or both assumed to be true in the absence of positive proof, necessary to enable the commander in the process of planning to complete an estimate of the situation and make a decision on the course of action."<sup>26</sup> Time is the most important, but probably the least when it comes to ROE considerations. The last three, political, forces, and enemy, are all core to ROE development. The political situation is going to directly drive how restrictive or liberal ROEs need to be. Force composition will determine available capability and therefore weaponeering options. The enemy is a huge factor. A hybrid opponent will use irregular methods with high tech weapons among civilians. This is an unattractive option for the U.S. since we strive for minimal civilian losses. Expect the enemy to exploit this. This is why the red light-green light ROEs are so dangerous to our troops. We become predictable and vulnerable. Using the assumption that the enemy will exploit red light-

green light rules is a must. “A valid assumption has three characteristics: it is logical, realistic, and essential for the planning to continue.”<sup>27</sup> Never assume away an enemy capability. That is a cardinal planning rule.

COG Analysis needs to consider ROEs. ROEs are not a part of identifying the COG itself. Where ROEs come into play is in the identification of critical capabilities, critical requirements, and critical vulnerabilities. Joint Publication 5-0 lays these concepts out. In short a COG's critical capability (CC) is what allows it to function. In turn a critical requirement (CR) is a condition or resource that allows a critical requirement to function. A critical vulnerability (CV) a deficiency in a critical requirement that can be exploited and contribute to neutralizing the COG. From CVs decisive points (DP) can be determined. A DP is, “a geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contributes materially to achieving success.”<sup>28</sup> This is where ROEs come into play because you must act upon the system. How you are going to act upon the CV needs to consider ROEs. Again any time you place limits you are limiting potential capability. Bombing a CV may bring down the COG, but what if it also kills 250 civilians? That advantage obtained may quickly turn into a political nightmare. Expect such issues in hybrid conflicts. This is where your IO campaign and ROEs must tightly intertwine. Taking down COGs is essential. ROEs cannot be the reason COGs are not taken down. Effective IO will minimize the undesired consequences while enabling action. “At the theater level, IO planning must be integral to the planning process, which begins a range of activities that can be synchronized with the traditional force elements to achieve decisive points.”<sup>29</sup> This ties in to lines of operation (LOO). “LOOs define the orientation of the force in time and space or purpose in relation to an adversary or objective.”<sup>30</sup> Arranging DPs into LOOs is important. Hybrid

conflict may be ongoing in the middle of a COIN operation. IO is to the over all operation across all lines in all phases. Figure 5 displays the LOO and ROE linkage.

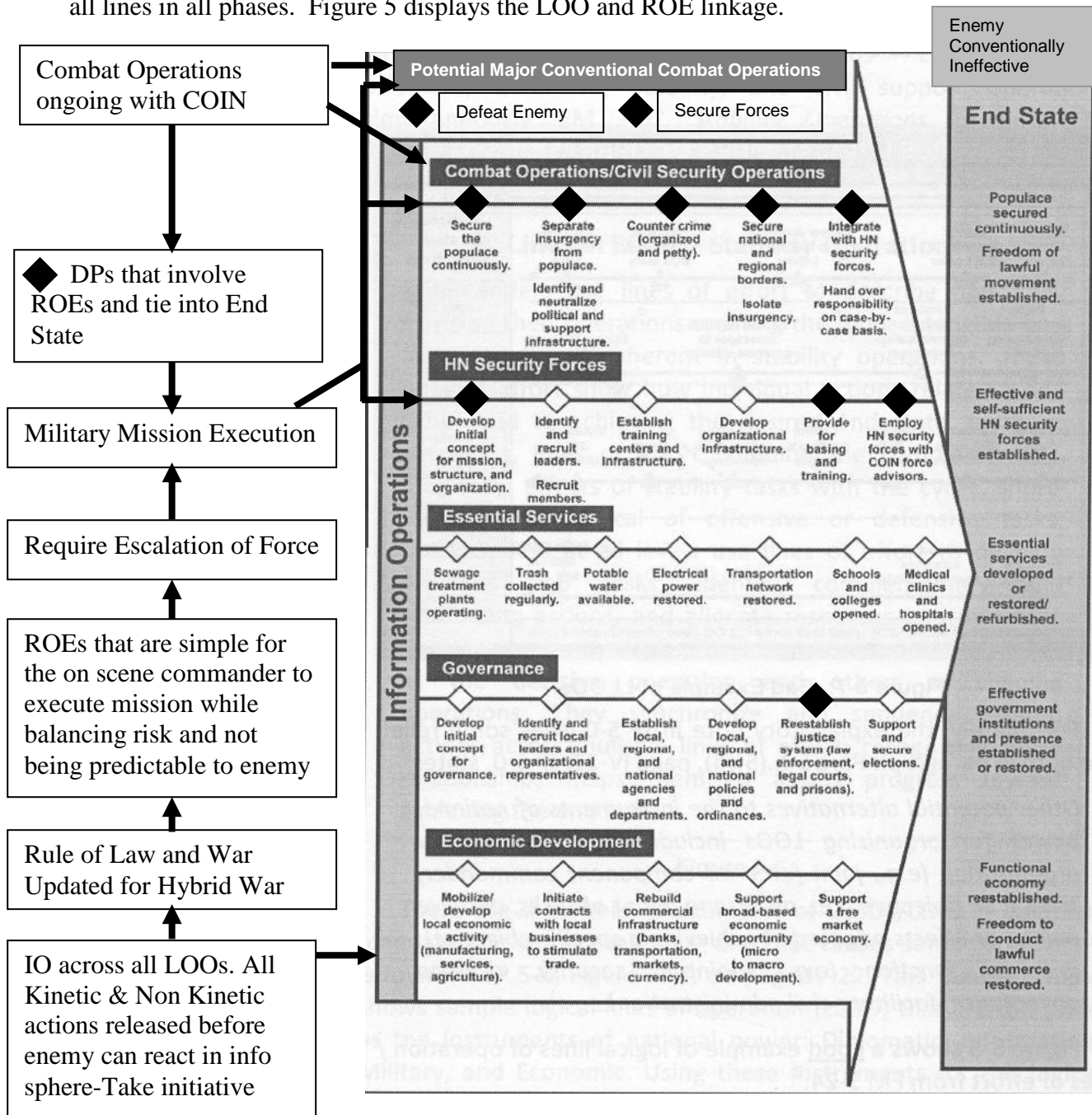
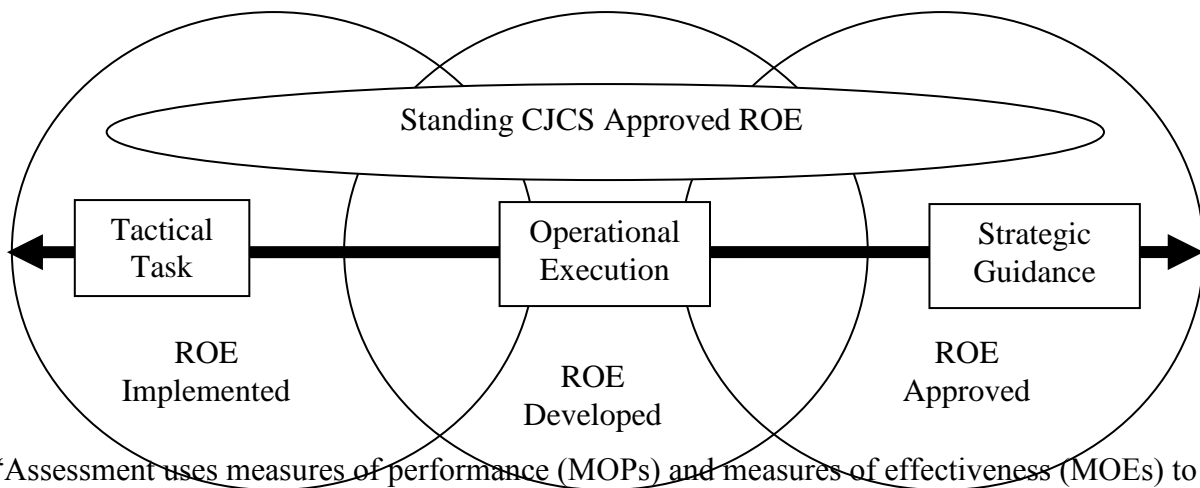


Figure 5 FM 3-24 Logical LOOs in Hybrid War with ROE Overlay<sup>31</sup>

The JFC's planning guidance will contain operating limitations with the restraints and constraints listed out. "Many operational limitations are commonly expressed as ROE."<sup>32</sup> With ROE and IO planning imbedded in the mission analysis the guidance should be broad with the

JFC's concept for risk. The JFC should clearly lay out the level of delegation of authority to employ force. Optimally the delegation is decentralized with minimal red light-green rules. With the proper training Centralized control with decentralized execution in regard to ROE will lower risk to U.S. personnel by decreasing our predictability and increasing the battlefield commander's ability to protect soldiers and accomplish the tactical mission.

Mission success criteria and ROEs are interlinked. "Mission success criteria describe the standards for determining mission accomplishment."<sup>33</sup> All planning activities need to link strategy to task. ROE planning is required to draw this linkage. In the world where tactical issues become strategic issues almost immediately ROE planning across the spectrum can bridge the current divide that exists between a platoon clearing the village and the SECDEF. Figure 6 represents that linkage. Since all tasks need to lead to the strategic end state all ROEs need to facilitate not hinder that linkage. ROEs are a key measure of mission success criteria.



"Assessment uses measures of performance (MOPs) and measures of effectiveness (MOEs) to indicate progress toward achieving objectives."<sup>34</sup> In JP 5-0 it specifically addresses not

violating ROEs as success criteria.<sup>35</sup> Flexibly ROEs with an imbedded IO campaign will provide a good MOE assessment. ROEs are an integral part of MOPs because complying with ROEs is a measurable assessment. Red light-green light ROEs are easier to measure, but less effective.

Commander's Critical Information Requirements (CCIRs) and ROEs have linkage. CCIRs are required for thorough mission analysis. "The two key components subcomponents [of CCIRs] are critical friendly force information and priority intelligence requirements [PIRs]." <sup>36</sup> Friendly force information needs to include what kind of training the available forces had prior to entering the conflict. If these troops have not had good training for a hybrid conflict the JFC will be forced to use red-light green light ROEs. If the force has been trained as described here the JFC can implement flexible and effective ROEs. PIRs are also critical for ROE development. Where hostiles are located is only a portion of the data. Complete PMESII-PT data is a PIR. Not only can ROEs be developed with this data, but an effective and interlinked IO campaign can be developed from the data. Linking CCIRs and ROEs will lead to more effective planning.

Laying out the ROE foundation in the operational design will allow that to be used in operational art, specifically COA development. The outputs of mission analysis with ROE considerations imbedded in them will give the components adequate information for planning in parallel with the JPG. The Cognitive map should have ROEs considered in the process for effective strategy to task ROE relationships. Planning guidance should include ROE guidelines that are flexible. CCIRs should build a complete PMESSI-PT picture for ROE with IO development. COAs can't be developed without solid mission analysis.

### Conclusions

Hybrid Warfare is the way of future conflict. Hezbollah's strategic success against Israel should be a wakeup call to the U.S. How will the U.S. handle a high tech Taliban? A better method for determining action must be developed or the U.S. and its allies will continue to suffer in operational ability and world opinion. In hybrid warfare there are no front lines. The traditional peace rules versus war rules break down. In addition the laws of war and rule of law

distinction breaks down as well. The first key recommendation is new international laws covering a wide scope of irregular conflict need to be put in place. This will cover the international authority and eliminate a very artificial line that has been in place since LOAC was conceived. The updated international model will then allow nations to update their laws. The concept of peace and war is relative-not absolute.

The second key recommendation is ROEs need to be an adaptive versus rigid process that is fully integrated in operational design. Absolute ROEs that have existed have hampered military operations continuously since World War II. The only hard ROEs that should be in place are as follows. 1) The inherent right of self defense and the self defense of friendly forces or civilians. 2) LOAC shall be followed especially with necessity and proportionality. No other ROEs should be set in stone. Instead general concepts with tactical applicability should be developed. These should have strategic linkage. Risk considerations will always be weighed between friendly risk and risk to the civilian community. This critical part of mission analysis will translate in COAs that have adaptable ROEs as an essential part of how to accomplish objectives. Hybrid warfare requires coalition forces to be in and among the local population. Therefore an interactive and adaptive process will work. Political restrictions on the commander who is charged with mission accomplishment and bringing the troops home alive while not destroying the local community should be minimal. The United States and its coalition partners owe flexibility to the men and women executing the nation's difficult business.

The adaptable ROEs also will not give our adversaries the opportunity to continuously operate in the current grey areas between existing rules. Many of adversaries specialize in this and exploit an asymmetric advantage that currently we can do very little about it. Our adversaries will quickly learn that the highly trained leaders of the United States military

will be making the decisions. Our commanders should be far less predictable than predetermined rules. This will put the asymmetric advantage in the hands of our commanders. Since the ultimate goal is mission accomplishment, our commanders will tailor their shoot or not to shoot criteria based on the mission. This will eliminate the multiple sets of ROEs and allow each action to be dealt with independently.

The last recommendation is the critical linkage between ROEs and IO. The two must work together. IO is the key enabler to flexible ROEs. Using IO as an offensive weapon will allow the commander to balance risk vs. mission and not be paralyzed by adversary driven reaction. A highly trained commander uses IO to full advantage. This reduces enemy capability, protects the population, mitigates motivated media, and pacifies domestic problem very sensitive to friendly and civilian casualties. IO is the key strategy to task linkage which reinforces how tactical actions link to a national strategic end state.

This method will be better for the U.S. and civilians. It may sound like a license to kill, but in reality highly trained personnel will use better discretion. Commanders will not be able to hide behind the rules either. Commanders will be accountable for their actions, but everything will not be caught up in legal battles over ROE violations. Mistakes will happen. They can be used as learning tools and not career ending court cases. Commanders can spend less time focusing on some artificial rule book and more time preparing forces for the daily rigors of hybrid war.

## Appendix A Definitions

Constraint- In the context of joint operation planning, a requirement placed on the command by a higher command that dictates an action, thus restricting freedom of action.<sup>37</sup>

Collateral Damage- Unintentional or incidental injury or damage to persons or objects that would not be lawful military targets in the circumstances ruling at the time. Such damage is not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the attack.<sup>38</sup>

Commander's Critical Information Requirement-An information requirement identified by the commander as being critical to facilitating timely decision-making. The two key elements are friendly force information requirements and priority intelligence requirements. Also called CCIR.<sup>39</sup>

Distinction-Discriminating between lawful combatant targets and noncombatant targets such as civilians, civilian property, POWs, and wounded personnel who are out of combat.<sup>40</sup>

Hybrid Warfare- The employment of the combination of traditional, irregular, catastrophic, and disruptive tactics, techniques, and procedures, including all elements of national power (Diplomatic, Information, Military, and Economic) in an effort to achieve success across the full range of warfare: tactical, operational, and strategic.<sup>41</sup>

Information Operations-The integrated employment of the core capabilities of electronic warfare, computer network operations, psychological operations, military deception, and operations security, in concert with specified supporting and related capabilities, to influence, disrupt, corrupt or usurp adversarial human and automated decision making while protecting our own. Also called IO.<sup>42</sup>

Law of Armed Conflict- That part of international law that regulates the conduct of armed hostilities. Also called the law of armed conflict.<sup>43</sup>

Measure of Effectiveness-A criterion used to assess changes in system behavior, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect. Also called MOE.<sup>44</sup>

Measure of Performance-A criterion used to assess friendly actions that is tied to measuring task accomplishment. Also called MOP.<sup>45</sup>

Operational Design- The conception and construction of the framework that underpins a campaign or major operation plan and its subsequent execution.<sup>46</sup>

Operational Limitation- An action required or prohibited by higher authority, such as a constraint or a restraint, and other restrictions that limit the commander's freedom of action, such as diplomatic agreements, rules of engagement, political and economic conditions in affected countries, and host nation issues.<sup>47</sup>

Priority Intelligence Requirement-An intelligence requirement, stated as a priority for intelligence support, that the commander and staff need to understand the adversary or the operational environment. Also called PIR.<sup>48</sup>

Proportionality- Prohibits the use of any kind or degree of force that exceeds that needed to accomplish the military objective.<sup>49</sup>

Necessity- Requires combat forces to engage in only those acts necessary to accomplish a legitimate military objective.<sup>50</sup>

Restraint- In the context of joint operation planning, a requirement placed on the command by a higher command that prohibits an action, thus restricting freedom of action.<sup>51</sup>

Risk Management- The process of identifying, assessing, and controlling, risks arising from operational factors and making decisions that balance risk cost with mission benefits.<sup>52</sup>

Rules of Engagement (ROE)- Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called ROE.<sup>53</sup>

Red light-green light ROEs-Rigid ROEs imposed by higher echelon commanders removed from the conflict zone that control the level of escalation and severely limit the options in conflict to meet political objectives regardless of battlefield conditions and risk to friendly forces (author defined).

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